APATOR

New gas meter
iSMART 2

NB-IoT M-Bus wireless OMS® dlms

Application

UG iSMART 2 is a new generation of smart gas meters of Apator Metrix. It combines a new innovative smart meter index with a robust diaphragm gas meter based on more than 70 years' product design experience.

The new smart index digitises the rotation of the mechanical meter by patented, low power, solid state Hall Effect sensors. There are no moving parts in the index. Application of dual sensors detects flow and reverse flow. The index can also handle smart functionalities like shut-off valve, communication and customer specific features. A microkernel-based, real-time operating system ensures flexibility and security. The architecture of the smart index electronics enables implementation of different communication modules.

Apator Metrix introduce iSMART 2 with NB-IoT and with Wireless M-BUS communication.

gas

Basic technical data

Model	iSMART 2
Standards/Directives/Compliances	2004/22/EC (MID), 2004/108/EC (EMC), EN1359:2017, EN16314:2013, WELMEC7.2, 2014/53/EU (RED)
Gas meter class	1.5 (with error curve correction)
Size	Applicable for all complete gas meters range: G1.6, G2.5, G4, G6, G10, G16, G25
Mechanical Class	M1
Pmax (also with valve included)	50 kPa (0.5 bar)
Temperature range	-25°C... +55°C
Resistance to high ambient temperature	T@0.1bar acc. EN1359
Display resolution	00000.0000 m^3
Cyclic volume	1.2 dm^3, 2.2 dm^3, 5.6 dm^3, 11.2 dm^3
Weight and dimensions	See product catalogue
Family of gases	1.2.3 acc. EN437:2003+A1:2009
Index Ingress Protection Rating	IP65 acc. EN60529
ATEX	Zone 2
Body & Coating	Zinc-coated pressed steel plate powder painted RAL7035
Band	Stainless steel
Shut-Off Valve (optional)	Zero pressure drop, full-bore, shut-off valve. Class 1 according to EN16314:2013
Cable transfer	Pins gold plated, glass-ceramic, high temperature resistant, helium leakage
Service interface	IR acc. EN62056-21
Batteries	Lithium Thyonyl-Chlorides C+D cells. The battery life depends on operating. Up to 15 years. Replacement without breaking metrological seal.
Communication modules	NB-IoT, W-MBUS
Communication protocols	DLMS/COSEM, OMSv4
Firmware Update	Over-The-Air firmware update and locally by optical port
Smart volume sensing	Low power, electronic solid state. Hall Effect sensor
Temperature compensation (optional)	NTC sensor
Alarms	External magnetic field, reverse flow, battery life time, opening index, opening metrology compartment.
LCD display	Large and clear view enabling LCD display with backlight illumination. Customizable to present: • (Vm) Volume at measuring condition [m^3] • (Vc) Corrected volume by error curve correction algorithm [m^3] • (Vb) Volume at base condition [m^3] • Instantaneous flow rate [m^3/h] • Maximum demand (peak flow) • Measurement displayed to 0.1 litre resolution (00000.0000 m^3) and more...
Customization	Product can be easily customized to meet customer requirements in functionality, communication and design
Real-Time Operating System	Phoenix-RTOS

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